Work Order ID 97043

97043

February-14-13 1:21:03 PM

Item ID: D3290-041 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Replacement Window Assembly

Start Date: 2/18/13 **Start Qty:** 2.00 **Cust Item ID:**

Required Date: 2/28/13 **Req'd Qty:** 2.00 **Customer:**

Reference:

Approvals: **Process Plan:** MLS **Date:** 13-02-15 **Tooling:** _____ **Date:** _____ **Run Start** *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D3290	Rev C								
150	Pick Kit	0.00							
150									
Packaging	**Memo**	0.00							
Packaging									
160		0.00							
160	Small Fab					4	SAD	13-04-11	
Small Fab	**Memo**	0.00							
Small Fab	Assemble as per Dwg D3290 Clean D3290-041 and place in plastic wrap								
170	QC5- Inspect part completeness to step on W/O	0.00				4			
170									
QC	**Memo**	0.00							
Quality Control									

DAV 27 B.4 D

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Work Order ID 97043

97043

February-14-13 1:21:03 PM

Item ID: D3290-041 **Accept** *N9000040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Replacement Window Assembly

Start Date: 2/18/13 **Start Qty:** 2.00 *2* **Cust Item ID:**

Required Date: 2/28/13 **Req'd Qty:** 2.00 *2* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Identify as per dwg & Stock Location:_____	0.00							
180 Packaging	**Memo** SMP	0.00						43/4/12	
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00					13/4	15	
190 QC	**Memo**	0.00							
Quality Control									

MP
13-5-13

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric to O/S
☐ Cracks
☐ Crushed/Crimped
☐ Cuffs
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Ripples in Bend
☐ Torque Waves in Extrusion
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damaged
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drill Holes
☐ Drawing
☐ Finish
☐ Folio
☐ Grain
☐ Hardware
☐ Inspection Incomplete
☐ Instructions Incomplete/Unclear
☐ Maintenance
☐ Mislabeled
☐ Misread
☐ Offset
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Ovalized
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other _____

Picklist Print

February-14-13 10:48:13 AM

Work Order ID: 97043

Parent Item: D3290-041 **Start Date:** 2/18/13 **Required Date:** 2/28/13

Parent Item Name: Replacement Window Assembly **Start Qty:** 2.00 **Required Qty:** 2.00

Comments: IPP B05.05.25Added Step 11KJ/JLM
IPP C06.05.09Ecn 798 EC
IPP Rev:D Now on Waterjet 06-06-16 JLM
IPP rev E rev C dwg 07.09.28 EC verified by: DD

Component Item ID / Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3290-1 Window Frame		Manufactured	No			150	Each	7.0000	1	~~4~~ 2	SAD	13-04-11	
				Location		**Loc Qty**		**Loc Code**					
				ST213		7							
				73721		2							
				89917		1							
				94420		4		B97046		4			
D2126 Seal		Manufactured	No			150	f	347.6308	6.5	~~13~~ 26	SAD	13-04-11	
				Location		**Loc Qty**		**Loc Code**					
				ST405		347.63079							
				57106		4							
				68336		2.44679							
				~~89058~~		341.184				26			
D3290-3 Window		Manufactured	No			150	Each	1.0000	1	~~2~~ 4	SAD	13-04-11	
				Location		**Loc Qty**		**Loc Code**					
				ST214A		1							
				93792		1		94675		4			

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

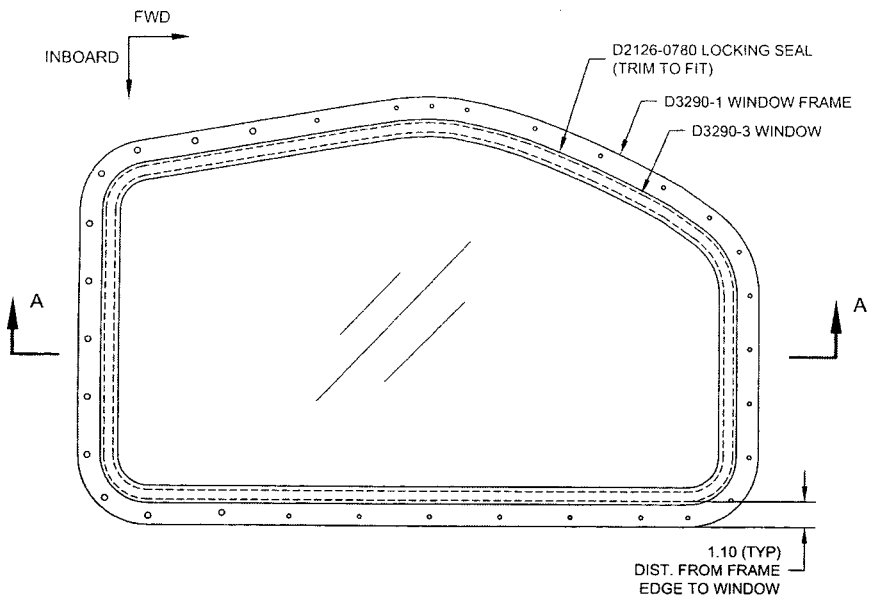
FAULT CATEGORY

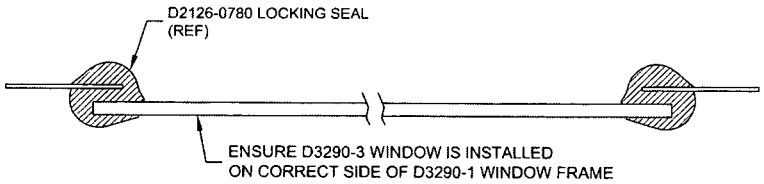
Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped.
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

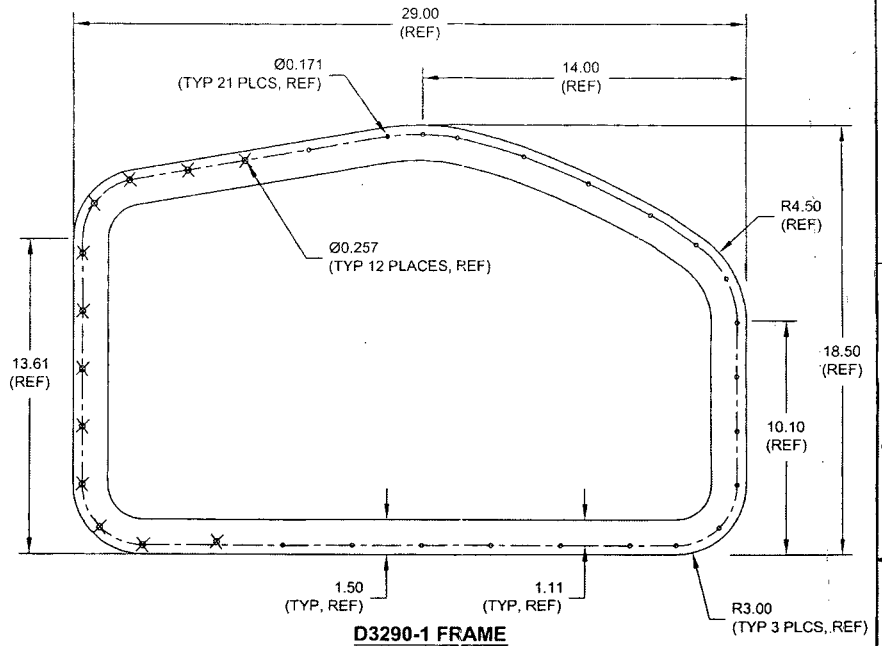
General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other





SECTION A-A
NTS



D3290-1 FRAME

D3290-1 NOTES:
1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
(REF. DART SPEC. M6061T6S.040)
OR
5052-H32 ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/8 OR AMS 4016
(REF. DART SPEC. M5052H32S.040)
2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1
POWDER COAT WHITE (REF. 4.5.3.1) PER DART QSI 005 4.3
3) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
4) IDENTIFICATION: IDENTIFY WITH DART P/N "D3290-1" USING FINE POINT PERMANENT INK MARKER
5) WEIGHT: 0.47 LBS

RELEASED
07.09.22
DEO ATTACHED

D3290-041 REPLACEMENT WINDOW ASSEMBLY

D3290-041 NOTES:
1) WEIGHT: 3.66 LBS

GENERAL NOTES:
1) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
2) UNITS: INCHES UNLESS OTHERWISE NOTED

UNDER REVIEW
07.09.16
PMCR 09-037
09/10/19

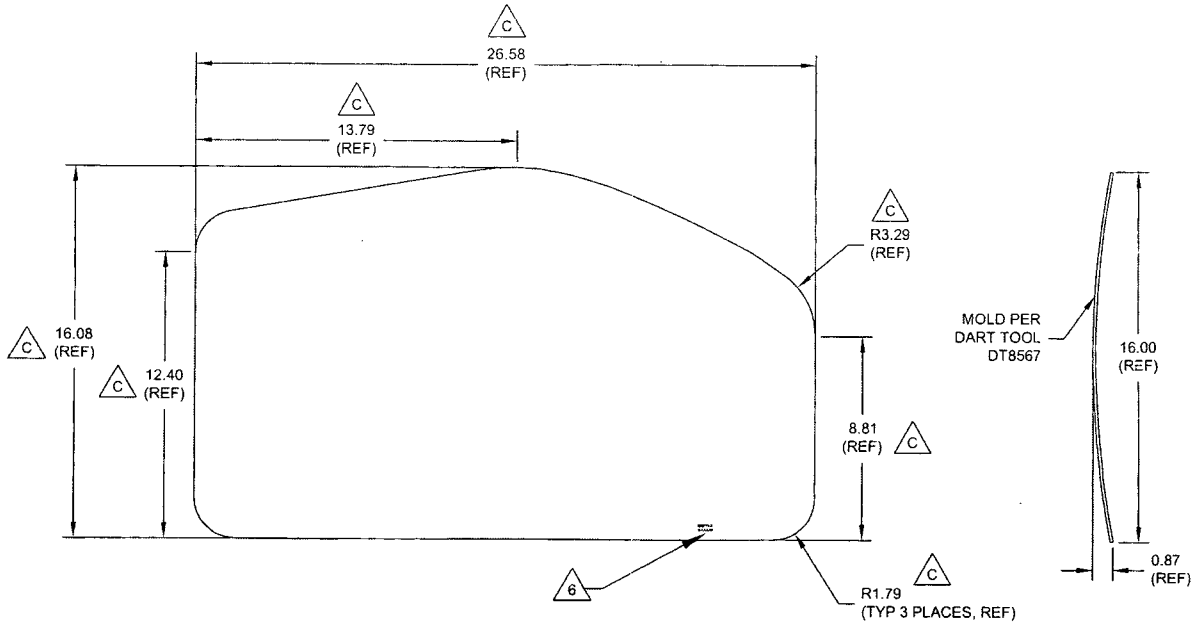
REV.	DESCRIPTION	BY	DATE
C	UPDATE DIMS PER PAR 188	DC	07.07.24
B	UPDATE MATERIAL PER NCR 029	MB	06.04.20
A	NEW ISSUE	RF	04.06.14

DESIGN	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		
CHECKED	DRAWING NO.	REV. C
MFG. APPR.	D3290	SHEET 1 OF 2
APPROVED	TITLE	SCALE
DE APPR.	REPLACEMENT WINDOW ASSEMBLY	1:5
DATE 07.07.24		

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SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 97043 MCS
13-02-15

97043



D3290-3 WINDOW

UNDER REVIEW

DEO ATTACHED

RELEASED 07.09.22

B **D3290-3 NOTES:**

1) MATERIAL: POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425
 OR PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER
 LP-391 TYPE 1 GRADE C, 0.125 THICK
 (REF. DART SPEC. M-ACRYLIC-S.125)
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) REMOVE SHARP EDGES
6) IDENTIFICATION: ENGRAVE P/N "D3290-3" AND B/N ON LOWER EDGE
 USE 0.125" HIGH LETTERS TO MAXIMUM DEPTH OF 0.005"
7) WEIGHT: 1.87 +/- 0.42 LBS
8) MOLD PER DART TOOL DT8567

DESIGN		**DART AEROSPACE LTD**	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3290	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		REPLACEMENT WINDOW ASSEMBLY	1:5
DATE	07.07.24		

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97043

DRAWING NO.	TITLE	REV. C	DART AEROSPACE LTD	D.E.O. NO.	SHEET NO.	SCALE
D3290	REPLACEMENT WINDOW ASSEMBLY		ENGINEERING ORDER	D3290-C-1	SHEET 1 OF 1	NTS
DRAWN	CHECKED		MFG. APPR.	APPROVED	DE APPR.	
DATE 09.09.18	DATE 09.09.18		DATE 09.09.18	DATE 09/09/21	DATE 09/09/21	

PURPOSE:

CHANGE MATERIAL THICKNESS OF D3290-1 FRAME TO 0.063 FROM 0.040. REF PAR 09-033.

CHANGE:

MATERIAL CALL-OUT OF D3290-1 FRAME ON SHEET 1 IS AMENDED AS FOLLOWS:

D3290-1 NOTES

1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
~~(REF. DART SPEC. M6061T6S.040)~~ REF. DART SPEC. M6061T6S.063 (REPLACE)
OR
5052-H32 ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
PER AMS-QQ-A-250/8 OR AMS 4016
~~(REF. DART SPEC. M5052H32S.040)~~ REF. DART SPEC. M5052H32S.063 (REPLACE)

RELEASED
2009 -10- 09

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